

ABSTRACT OF THE DISCLOSURE

To realize an optical transmitting apparatus at reasonable cost which can be appropriately used for a high-speed optical communication using an optoelectronic integrated circuit. More specifically, it is to realize an optoelectric integrated circuit without using an expensive InP substrate, thereby reducing the size and cost of the optical transmitting apparatus and obtaining a high performance. To achieve the aforementioned object, the present invention uses a GaAs substrate to constitute an optoelectronic integrated circuit operating at the wavelength appropriate for communication use. By properly selecting an active layer material and configuration of the optical element, we could realize operation in the 1.3-micrometer wavelength band or 1.55-micrometer band.

FOUO 587-022502